

Netherlands. There is, however, a larger (20 mm-25 mm) blue, but opaque, bead similar to the Wlb15 variety which is found more regularly in excavations in Holland and which may be the basis for the “Dutch” appellation for the smaller specimens.

At the market of Bamako in Mali, the famous chevron bead is offered as “Dutch.” Although the colors of these beads (i.e., red, white, and blue) correspond to those of the Dutch flag, it is by no means certain that they were manufactured in Holland. In fact, it is much more likely that they were produced in Venice.

In his *Travels in Nubia*, 1819, Burckhard describes the trade in beads in East Africa. There the Italian traders called a white bead coming from the glasshouses in Bohemia as “Contaria d’Olanda” (“Beads of Holland”).

What’s in a name?

60. BEADS FROM THE IRON AGE GRAVES OF KISSI, NE BURKINA FASO, by Sonja Magnavita¹ (1999, 35:4-11)

The excavation² of the cemetery Kissi 3 in NE Burkina Faso revealed Iron Age graves dated to the 6th-7th centuries A.D. Numerous grave goods have been found, for example different kinds of iron weapons, tools, iron and copper jewellery, wood and leatherwork, basketry, and textiles. The materials show evidence of different kinds of trade connections, like local, interregional, and long-distance, even trans-Saharan, contacts. The arguments are based partly on the study of 1,300 beads, found as grave goods and presented here.

The sites of Kissi are situated in the north of Burkina Faso, West Africa, close to the *Mare de Kissi*, a seasonal freshwater lake. Since 1996, archaeological investigations resulted in the location of 25 settlement mounds, about 50 stone structures of different appearance, and six cemeteries with graves marked by stone slabs. All sites are situated in a quite small area of about 4 sq. km. The excavation of different sites indicate human occupation at least between the 1st and 13th centuries A.D. While settlement mounds revealed only a few beads, several thousand have been found in the cemeteries excavated so far. The analysis of the beads from one site (Kissi 3), has been concluded and will be presented here. Since the examinations of the beads of two other cemeteries are still in process, the results will be presented in further publications.

More than 1,300 beads made of different materials have been found in the cemetery of Kissi 3. Of these, 68% are made of **stone**, mostly of quartz (white quartz, rock

crystal, and rose quartz) and less of chalcedony (jasper and carnelian). All these raw materials occur within a radius of about 50 km, pointing to a place of production nearby. The stone beads are ground; additionally those made of chalcedony have a faceted and polished surface. Hypothetically, the beads of Kissi might originate from Hanouzigren in SW Niger (Vernet 1996:312ff.), where quartz and chalcedony beads of similar size, shape, and surface treatment were produced in the first millennium A.D. A few carnelian beads have different features. They belong to the “long bicone type” mentioned, for example, by Insoll and Shaw (1997:15), and are multifaceted and clearly thinner than the other stone beads. Previously, their origin has been placed to the Near East, Egypt, or India (Sutton 1991:152ff.; Insoll and Shaw 1997:15), but without further research (for instance, mineralogical analysis), this hypothesis remains unproved.

The second group is represented by **metal** beads with 17% made of iron and less than 1% of a cupric material. While the iron beads could have been produced locally, the cupric beads may come from a Saharan production center (Grébénart 1988).

The third group comprises **drawn glass** beads which make up about 10% of the collection (6% are white oxidized, 3.3% blue translucent, 0.5% green translucent, and 0.5% yellow opaque). Until now, there is no evidence of glass (bead) production in the 6th century A.D. in West Africa. Suggesting an import of glass beads, the nearest origin would be Byzantine North Africa. Preliminary mineralogical analysis carried out on yellow beads points to a hard, white, and translucent glass of high quality with numerous particles of antimony, resulting in the yellow opaque appearance (Prof. G. Brey: pers. comm.).³ Interesting results are expected by comparison of the composition of the glass beads from Igbo-Ukwu with those of Kissi, which are very similar in size, shape and color (Shaw 1977: 20).

Beads made of **organic materials** and **clay** occurred only in a small percentage: 1% ostrich eggshell, 1% bone, and 1% clay. Local production of these beads is very probable. The clay beads are segmented. This is a specific shape known from many other sites in the region. De Beauchêne (1966:6 f.) mentions similar beads in SW Niger and Insoll (1996:82) affirms the occurrence of such beads and half-products in the Gao region indicating local production.

To classify the beads, three main groups with various subtypes have been used: cylindrical, spherical, and discoid shape.⁴ To summarize the results, most of the beads are cylindrical (72%), 23% are discoid, and only about 5% are of a spheroid shape. Shape and raw material clearly correspond:

cylindrical beads are mainly of stone, discoids of glass, and the few spheroids are mostly both of glass and stone. As the shape of the iron beads is not clearly visible without x-ray, only a few could be determined by now. They often belong to the group of cylindrical shape, but discoids also occur. Beads of ostrich eggshell are always of discoid shape while bone, teeth, and clay beads are mostly spheroidal.

The beads have been worn as necklaces (Fig. 1; Pl. IIB top), arranged in one row. The iron beads are an exception as shown by x-ray analysis of the corroded finds indicating compositions in several rows. On the other hand, the oxidation process is a boon because the thread of the beads, made of leather, has been preserved. The use of a similar thread of leather for the other beads might be possible, but cannot be proved.

Since most of the beads are made of quartz and chalcedony, the dominating colors are white and red. As can be seen from complete necklaces, there is a variation in the color achieved by a systematic change of white quartz and red chalcedony beads (Pl. IIB bottom). Where it could be

observed, the largest beads—mostly of biconical shape—were placed in front, in the middle of the necklace. The deposition of beads as grave goods apparently was not a question of gender. In fact, most of the jewellery has been found in “warrior graves” 10 and 14, containing swords, daggers, and arrows and were very probably those of men.

Most beads were found as grave goods, sometimes exclusively. The amount of beads varies extremely from grave to grave. For instance, burial No. 10 wore a necklace consisting of 94 quartz, 41 jasper, 16 glass, and 14 carnelian beads. Another example is Grave No. 14, where an amount of 171 quartz, 37 jasper, 10 carnelian, and 2 glass beads has been found. The beads of these two graves represent more than a third of all beads found during the excavation of a total of 15 preserved graves. The varying amount of beads is highly correlated with other valuables like iron weapons (e.g., swords, daggers, arrows) and different kinds of jewellery made of iron and copper alloys. Graves 10 and 14 have the most grave goods indicating long-distance trade connections and these are also the graves with the most precious beads, assuming that glass and carnelian—because of the fact that they were imported goods—were more precious than other materials. For this reason, it seems likely that beads indicate prosperity and social position in the 6th-7th centuries A.D.



Figure 1. The skeleton in Grave 3 with a necklace of 77 beads of quartz and jasper.

Endnotes

1. J.-W. Goethe Universität, Seminar für Vor- und Frühgeschichte, Archäologie und Archäobotanik Afrikas, Frankfurt/M., German Research Foundation Project “History of Culture and Language in the Natural Environment of the West African Savannah.”
2. Excavation and analysis of the material was presented as a M.A. thesis by the author in 1998.
3. Author’s note, 8 Sept. 2010: Prof. G. Brey changed his mind shortly after the appearance of this article. In fact, the numerous metallic particles in the glass matrix are lead, not antimony. After these initial, preliminary investigations, further chemical analyses by Robert H. Brill of The Corning Museum of Glass and by another glass bead research team led by Peter Robertshaw followed. It turned out that most of the analyzed glass beads were made of a soda-lime glass, with the soda derived from the ash of halophytic plants. This type of glass was very likely produced in the Middle East, perhaps in Persia. For more information, *see* Magnavita (2009) and Robertshaw et al. (2009).
4. A more detailed report appears in Magnavita (2003).

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61. EARLY SIXTEENTH-CENTURY GLASS BEADS FROM THE TATHAM MOUND, CITRUS COUNTY, FLORIDA, by Jeffrey M. Mitchem (1986, 8:13-16)

The Tatham Mound (8-Ci-203) is an aboriginal sand burial mound located in eastern Citrus County, Florida. Since early 1985, personnel from the Florida State Museum have been conducting excavations at the site. The top stratum of the mound has yielded a large assemblage of early 16th-century European trade material, including iron and silver objects and beads of silver, gold, and glass. The purpose of this paper is to briefly describe the glass beads from the mound.

Table 1 lists the glass beads by type, with classification based on the system devised by Smith and Good (1982). The number of beads recovered is listed for each type, along with a short description and notes. Of the 55 beads recovered, 24 are varieties of Nueva Cadiz Plain (both faceted and unfaceted), nine are varieties of faceted chevrons, nine are small olive-shaped opaque blue beads, six are spherical wound transparent green beads, five are spherical wound navy blue (almost opaque) beads, and one is spherical, but too patinated (or possibly burned) to determine color.

The presence of Nueva Cadiz and faceted chevron varieties indicates that the beads date from the period A.D. 1500-1560 (Smith and Good 1982:11). This would suggest contact with the expeditions of Panfilo de Narvaez (1528) and/or Hernando de Soto (1539), both of whom are believed to have passed through this area. Two other sites in this part of Florida have produced very similar assemblages of glass beads. These are the Weeki Wachee and Ruth Smith mounds (Mitchem and others 1985). The probability that all three sites represent contact with the same expedition is strengthened by the fact that three of the Nueva Cadiz varieties (IIA1d, IIC2a, and IIC2b) and one of the faceted chevron varieties (IVC2d) from Tatham were previously known in North America *only* from the Weeki Wachee and Ruth Smith mounds (Mitchem and others 1983:204; Smith and Good 1982:48-50).

The presence of the spherical beads is surprising, as they are uncommon in sites of this time period (Smith and Good 1982:11). However, their apparent rarity may be due to inadequate samples, because there are very few complete, carefully excavated bead assemblages from early sites in the southeastern United States.

Excavation will continue in the fall of 1986. This work should add to our knowledge of beads from early Spanish contact sites in Florida and adjacent areas.